t. A, contd.

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (canceled)

Claim 2 (currently amended): The apparatus of claim 18 4 wherein the slopes of said reflective mirrored surfaces are defined so that angles of incidence α of said radiant energy on said reflective mirrored surfaces have particular values more than 45° and less than 90°.



Claim 3 (currently amended): The apparatus of claim <u>18</u> 4 wherein said <u>reflective</u> mirrored surfaces are designed and positioned to minimize screening and shadowing on other <u>reflective</u> mirrored surfaces.

Claim 4 (currently amended): The apparatus of claim <u>18</u> 1 further comprising one or more planar <u>reflective</u> mirrored surfaces for directing said radiant energy toward said energy receiving means.

Claim 5 (currently amended): The apparatus of claim 18 4 wherein at least one of said transversal profiles is a segment of conical section curve.

Claim 6 (original): The apparatus of claim 5 wherein said segment is parabolic.

Claim 7 (original): The apparatus of claim 5 wherein said segment is circular.

Claim 8 (currently amended): The apparatus of claim 18 4 wherein at least one of said transversal profiles is a segment of a curve represented by a polynomial function of at least second order.

Claim 9 (currently amended): The apparatus of claim 18 4 wherein at least one of said transversal profiles-is-a-segment of a parametric curve or spline tailored to provide a uniform desired illumination of said energy receiving means.

(Vasyly v et al.)

- Claim 10 (currently amended): The apparatus of claim 18 4 wherein at least one of said transversal profiles comprises a set of conjugated lines selected from the group consisting of straight, parabolic, circular, elliptical, and hyperbolic segments.
- Claim 11 (currently amended): The apparatus of claim 18 4 wherein said energy receiving means is positioned according to a relation: β < 90° where β is an angle between the direction to source of said radiant energy and direction to a point at said reflective mirrored surfaces taken at a point of the energy receiving surface of said energy receiving means.
- Claim 12 (currently amended): The apparatus of claim 18 4 wherein said energy receiving means comprises at least one photovoltaic cell having working area facing toward said reflective mirrored surfaces and the source of said radiant energy.
- Claim 13 (original): The apparatus of claim 12 further comprising at least one heat sink which is in heat exchange relation with said photovoltaic cell.
- Claim 14 (currently amended): The apparatus of claim 18 4 wherein said energy receiving means comprises at least one tubular absorber of a solar heat collector.
- Claim 15 (currently amended): The apparatus of claim 18 4 wherein said energy receiving means is mechanically separated from said reflective mirrored surfaces.
- Claim 16 (currently amended): The apparatus of claim 18 4 wherein one or more said reflective mirrored surfaces is disposed in any one of a translated, a reversed and/or a rotated orientation relative to the others having the same basic arrangement.
- Claim 17 (currently amended): The apparatus of claim 18 + further comprising at least one axle support means for positioning said at least one array of said reflective mirrored surfaces according to the movement of source of said radiant energy.

Claim 18 (new): Apparatus for collecting and converting radiant energy comprising:

a plurality of spaced apart, incorporated in at least one array elongated reflective surfaces having generally concave transversal profiles, front longitudinal ends and opposing rear longitudinal ends being generally inclined toward one another;

at least a substantial part of said reflective surfaces being designed and positioned to reflect incident radiant energy that impinges upon said reflective surfaces from the side of said front longitudinal ends into a plurality of convergent beams and direct said plurality of said convergent beams to a plurality of converging directions through spaces between adjacent pairs of said rear longitudinal ends; and

an elongated energy receiving means disposed in immediate energy receiving relation to each of said reflective surfaces so that said convergent energy beams reflected from said reflective surfaces at least partially superimpose on said energy receiving means.

and.

Appn Number: 10/026,121